
CADD Industry Resources

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Note:

This condensed version of CADD PRIMER is intended to give you an overview of CADD. It includes only important topics from CADD PRIMER. It does not include any diagrams. CADD PRIMER includes more than 100 diagrams that illustrate the working of CADD. For complete understanding of CADD refer to CADD PRIMER. This complete book is available for download for \$9.95 at <http://www.caddprimer.com> or you can order printed copies through the publisher listed at the end of this chapter.

About this Chapter

Implementing CADD is a big expense. It is worth the extra effort to take the time you need to select the right CADD program. With so many programs available, it is likely to get confusing. Each CADD vendor claims his or her product to be superior. The best answer may come if you review each program in light of your requirements.

This chapter describes the general criteria for selecting a CADD program and lists a number of leading CADD products and resources. Note that most companies offer more than one CADD program and may be able to customize the program with add-on programs.

CADD Industry Terms

Term	Description
AEC	Architecture, engineering and construction application.
ANSI	American National Standards Institute
Boolean modeling	A 3D modeling technique that allows to add or subtract 3D shapes from one model to another.
CAE	Computer aided engineering.
CAFM	Computer aided facility management
CAM	Computer aided manufacturing
CGM	Computer graphics metafile
DXF	Data exchange format - A standard format commonly used to exchange drawings from one application to another
EDM	Engineering document management
GIS	Geographic Information System
IGES	International Graphics Exchange Specification - A standard format used to exchange drawing data between one application and another
ISO	International Standards Organization
MCAD	Mechanical CAD
Parametric modeling	An ability of CADD to link geometry with the calculations.
PDM	Product Data Management
Solid modeling	3D modeling that assumes the 3D objects to be solids having weight properties.

Product Selection Criteria

The following criteria may help you make a CADD program selection:

- Is CADD intended for personal use or professional? A low-end product may be accepted for personal use, but for professional use, you may want to consider a high-end product.
- Select a program compatible with the programs used by your clients and consultants. It makes sharing drawings much easier. Although you will often hear from the CADD vendors that their programs are 100% compatible with other programs, it may not be the case. Ask for a trial version of the program and confirm it.
- Review how many customization features a CADD program offers. Customization plays a major role in making CADD more productive.
- Decide whether you need to buy a brand name product or any workable CADD program. Both may provide the same capabilities, but a brand name may cost twice as much. Selecting a brand name program may give you certain advantages such as finding add-on programs and experienced users.
- Find out if the dealer offers technical support. In the beginning you may have a lot of questions about the program. Without technical support, you may have to pay hourly charges to a consultant.
- Ask if the dealer offers free or low-cost updates of the program. Most CADD programs get revised every year. You may have to pay double in four or five years to get all the updates.
- New technology advancements are taking place everyday. CADD programs are getting highly specialized to meet the needs of specific professionals. With some research you may be able to find exactly what you need and you may not have to spend a bundle.

Leading CADD Products

Today's CADD market has become highly specialized. Most CADD programs are designed to meet the needs of a specific industry. CADD companies offer different varieties of their basic program to target a specific market.

The CADD programs may be divided into the following categories:

- Architectural Engineering Construction (AEC)
- General-purpose
- Mechanical CAD
- Solid modeling
- Visualization and rendering
- Facility management
- CAD/CAM/CAE

Architectural Engineering Construction (AEC)

Refer to CADD PRIMER for contact information and applications.

Product (s)	Contact Information	Application
Allplan, MiniCAD		
ARCHICAD		
ARCHITRON		
ArchT		
ARRIS		
AutoCAD, Architectural Desktop, AutoCAD LT		
CHIEF ARCHITECT		
MicroStation		
DATACAD		
SoftCAD, SoftCAD.3D, ArchiTECH PC		

General Purpose

Refer to CADD PRIMER for contact information and applications.

Product (s)	Contact Information	Application
CADVANCE		
DENEBACAD		
DesignCAD		
DYNACADD		
EasyCAD, FastCAD		
FELIXCAD		
POWERCAD		

Smart Sketch		
VDRAFT		
VISIO TECHNICAL		

Visualization and Rendering

Refer to CADD PRIMER for contact information and applications.

Product (s)	Contact Information	Application
AccuRender		
3D Studio MAX, 3D Studio VIZ, LIGHTSCAPE		
Art*lantis		
FormZ		
Virtus		

Facility Management CADD

Refer to CADD PRIMER for contact information and applications.

Product (s)	Contact Information	Application
APERTURE		
ARCHIBUS		
DRAWBASE		

Mechanical CADD

Refer to CADD PRIMER for contact information and applications.

Product (s)	Contact Information	Application
CADKEY		
CADMAX		
AutoCAD, Mechanical Desktop		
VELLUM		

Solid Modeling

Refer to CADD PRIMER for contact information and applications.

Product (s)	Contact Information	Application
Helix Design System		
IronCAD		
SOLIDWORKS		

CAD/CAM/CAE

Refer to CADD PRIMER for contact information and applications.

Product (s)	Contact Information	Application
CADRA		
CATIA-CADAM		
I-DEAS		
Pro/Engineer, CADDs, MEDUSA		
Unigraphics,Solid Edge		

Important CADD Resources on the Internet

CADD resources available on the Internet are vast. There are more than 100,000 web sites established for CADD-related products and services. If you search the web for the words CAD or CADD, it will list thousands of sites within seconds. You can spend a lifetime researching CADD using the Internet. The following are some important resources on the Internet:

Note: You can access the following sites through a web site dedicated to this book at <http://www.caddprimer.com>

Organizations associated with CADD

Description	Internet address
Association for Computer Aided Design in Architecture (ACADIA)	http://www.acadia.org/
Facility Information Council (FIC) of National Institute of Building Sciences (NIBS): An organization involved in developing U.S. national CAD standards.	http://nationalcadstandard.org/ http://www.nibs.org/
CAD Society	http://www.cadsociety.com/
American Design and Drafting Association (ADDA)	http://www.adda.org/
American Society of Mechanical Engineers (ASME)	http://www.asme.org/ (Search for word CAD)
Institute of Electrical & Electronics Engineers (IEEE)	http://gopher.ieee.org/ (Search for word CAD)
American Institute of Architects (AIA)	http://www.aiaonline.com/ (Search for word CAD)
Computer Aided Architectural Design Research In Asia (CAADRIA)	http://www.caadria.org/
Education in Computer Aided Architectural Design in Europe (ECAADE)	http://www.ecaade.org/

CADD/GIS Technology Center: A multi-agency vehicle to coordinate CADD/GIS standards used by US Department of Defense and other government agencies.	http://tsc.wes.army.mil/
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CADD magazines and journals

Description	Internet address
CADENCE: A leading CADD magazine focusing on the CADD industry.	http://www.cadence-mag.com/
CADSYSTEMS: A leading CADD magazine focusing on the CAAD industry. Available for free in Canada.	http://www.cadsystems.com/
CADALYST: A popular magazine focusing on AutoCAD.	http://www.cadonline.com
An electronic CADD magazine (e-zine) focusing on the CADD industry news. You can subscribe this weekly e-zine free of charge.	http://www.upfrontezine.com/
Joint CAD Journal: Engineering magazine from Russia	http://sungraph.jinr.dubna.su/jcj/
TCAD Journal: The Journal of Technology, Computer Aided Design.	http://www.ieee.org/journal/tcad/
CAD/CAM Publishing: books, magazines, industry links	http://www.cadcamnet.com/
CAD User Online: Australian/ Neuziland CAD magazine	http://www.caduser.com.au/

CADD Directories and Gateways

Description	Internet address
3zone: A comprehensive database of CADD companies, publications and resources	http://www.3zone.com/
CAD baseline URL database: Allows you to search products in a specific category	http://www.baseline.com/baseline/cadURLs.htm/
CAD Forum: CADD news, employment, companies, usergroups, dictionary	http://www.cad-forum.com
CAD on the Web: A database of CADD products and services	http://www.cadontheweb.com/
CAD open directory: Maintains a list of CADD products in different categories	http://dmoz.org/computers/cad/
Product Information Retrieval System (PIRS) for construction & design professionals	http://www.insa.com/
TenLinks: A comprehensive directory of CADD products	http://www.tenlinks.com/

Important CADD Resources

Description	Internet address
AEC Info. Center: architecture, engineering, building construction links	http://www.aecinfo.com/ (Search for word CAD)
Architectural CADD: Ratings and reviews	http://www.architecturalcadd.com/
CAD Depot: CADD software resource	http://www.caddepot.com/
CAD Info net: CADD news, reviews and links	http://www.cadinfo.net/
CAD Source International: Australia	http://www.cadsource.com.au/
Daratech, Inc.: Ranking of CADD software	http://www.daratech.com/
The CAD Place: Comprehensive lists of CADD products and services	http://www.cadplace.cjb.net/

Important CADD Links

Description	Internet address
CADD rating guide	http://www.cadratingguide.com/
Technical drawing/drafting resources on the Internet	http://www.gmi.edu/official/acad/mech-eng/drafting.htm
Technical drawing/drafting resources on the Internet	http://www.gmi.edu/official/acad/mech-eng/drafting.htm
PC and CAD encyclopedia on the web and links	http://www.pcwebopaedia.com/CAD_CAM.htm
CAD-CAM & graphics sites around the world	http://www.flash.net/~cdhb/Cadlinks2.htm
CAD home page: U.S. Department of Energy	http://www-cad.fnal.gov/

CADD vendors

Description	Internet address
Proven Solutions, Inc.: Links to over 480 hardware and software manufacturers.	http://www.proven-solutions.com/
CAD Studio on-line: CADD links	http://www.cadstudio.cz/
CADD links and symbol libraries	http://www.cadeasy.com/
Design Technology Warehouse	http://www-cad.eecs.berkeley.edu/Software/software.html
CAD information sources and manufacturers	http://www.compinfo.co.uk/tpcad.htm
The CAD Shack: CADD industry links	http://www.cadshack.com/
CAD WIRE: CAD/CAM training and support	http://www.cadwire.com/

CADD PRIMER ordering information:

CADD PRIMER is available at 30% off the cover price when you order directly from the publisher at the address listed below or through the web site <http://www.caddprimer.com/discount30.htm>.

MailMax Publishing, 43-15 Judge St., Suite 1R, Elmhurst, New York 11373.

Voice mail: (212) 894-3748 Ext. 1039, E-mail: info@caddprimer.com

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